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ABSTRACT

The literature on change identifies several factors which positively influence the successful institutionalization of innovation in an educational environment. At each stage of the process of institutionalization these factors interact with the innovation and the institution to determine whether the change will persist. Most of these factors fall into one of four general categories: (1) those related to the nature of the innovation, such as the power of the idea, the intervention strategy used, fiscal aspects, form of the innovation, intensity of the effort, and the advantages of the innovation; (2) those related to the organization and its members, including the organizational climate, the role and style of leadership, and the characteristics of the users of the innovation; (3) those related to the external sociopolitical context, including the needs and demands of a changing society, interest group pressure, and the reputation of the users; and (4) those factors related to the role and impact of the initiating or granting agency, including the mandate from the agency, technical assistance, and flexible monitoring. Research indicates that change results from a process of interaction among these factors and that they cannot be taken in isolation as they have a combined effect on the outcome of the change process. (AYC)

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A REVIEW OF THE RESEARCH ON

INSTITUTIONALIZATION OF INNOVATION IN EDUCATION

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VC 830 337

Institutionalization of Innovation in Education

> The basic, inexorable, unmistakable fact and force to deal with is that of CHANGE--unparalleled and unprecedented change that perplexes the public, confounds the authorities and demands response from educators, one of its instigators (Gleazer, 1981, p. 2).

Education, as an institution, has fallen short in its responsibility to develop innovative responses to rapidly changing societal needs. In fact, according to some researchers, our educational institutions have become outdated (Neale, 1981, p. 12).

Though there have been some substantial educational innovations implemented in this century (eg., counseling, kindergarten, integrated schools), these outcomes represent only a fraction of all educational innovations initiated. Further, innovations implemented in one school typically are not transferred to other schools (Pincus and Williams, 1979 p. 729). More importantly, according to Bredo and Bredo, the failure rate of educational innovation is its most salient feature (Baldridge and Deal, 1975, p. 449).

Consequently, the most pressing challenge presented to today's educational leader is to develop, implement, and maintain educational innovations which effectively respond to society and student demands. The intent of this paper, then, is to review and identify the factors which positively influence the successful institutionalization of innovation in an educational environment.

Institutionalization of Innovation

As previously indicated, change models identify several stages in the innovation process. At the institutionalization stage, the innovation is integrated into the regular, on-going activities and procedures of the institution. Tanner lists four criteria for judging the institutionalization of a project.

1. The change is understood and accepted by organization members as an operating feature of the institution.
2. The change is supported by the norms of the permanent organization.
3. The change is officially recognized as belonging to or being part of the institution.
4. Resources (including facilities, money, and staff) are allocated for its continuation (Tanner, 1978).

At each stage of the process leading to institutionalization, various factors interact with the innovation and the institution to determine if the innovation will persist. Though no one factor can be taken in isolation as a predictor of persistence, general categories of factors related to successful institutionalization, and the factors within those categories, have been suggested by researchers. Bush and Brock separate these factors into four general categories:

1. Factors related to the nature of the innovation.

2. Factors related to the organization and the organization's members.
3. Factors related to the external sociopolitical context.
4. Factors related to the initiating or granting agency (Bush and Brock, 1982, pp. 16-18).

The study by Bush and Brock identifies four factors in the category of the nature of the innovation which facilitate persistence (see Appendix A). Their research is based on case studies of the influence of Teacher Corps on Schools of Education, and it is concerned primarily with factors related to institutionalization of innovation. The four factors which Bush and Brock demonstrate are positively correlated to institutionalization are:

1. The power of the idea--the more clear, powerful, tested, and congruent with institutional values the idea, the more likely it will be to persist.
2. Intervention strategy--initial involvement by the user and coordinated communication about the innovation contribute to institutionalization.
3. Cost of the innovation (including staff and facilities requirements)--interrelated with other factors and not a predictor by itself.
4. Form of the innovation (complexity and size)--complex innovations are often viewed as challenges

by users and are generally supported if in-service training is provided. Pyramiding resources and programs (i.e., supporting the innovation with other funds and programs) facilitates success of complex innovations (Bush and Brock, 1982, pp. 317-320).

The Bush and Brock findings are not universally supported. Conflicting findings were reported by Spitzberg, who found weak or conflicting evidence on the importance of the power of the idea, the cost of the innovation, and the complexity of the project (Spitzberg, 1981, p. xxiv).

Another major study identifying factors related to the nature of the innovation, which impact institutionalization, is the Rand Change Agent Study, Federal Programs Supporting Educational Change (Berman and McLaughlin, 1976). The general focus of the study was how differences in federal programs, innovative projects, and the local environment affect project initiation, implementation, and diffusion in education. The researchers surveyed 293 change agent projects in 18 states. Their findings can be summarized as follows:

1. A strategy that promotes mutual adaptation of the innovation and the institution, that includes staff training, that provides for staff participation in planning and decision-making, and that provides for local materials development promotes persistence.

2. Funding level and source of funding for the innovation does not affect persistence.
3. Innovations which are central and congruent to the institution's goals are more likely to continue.
4. Innovations which involve complex educational treatments (eg., comprehensive curriculum revision) and overall faculty behavior changes are likely to persist.
5. Centralizing the innovation in one grade level contributes to successful change.
6. Integrating the innovation at a classroom level is an important factor in bringing about institution-wide change (Berman and McLaughlin, 1976, pp. 345-61).

Several other researchers studying factors related to the nature of the innovation identify elements of the implementation strategy which impact successful institutionalization. Bush and Brock and Havelock support the Rand study finding regarding a strategy which promotes mutual adaptation between the innovation and the institution (Bush and Brock 1982, P. 9 and Havelock, 1973, p. 136). Implementing change on a flexible time schedule and with teacher involvement in the planning process is critical to success according to Emrick (Watkins, 1981, p. 28) and Bush and Brock (Bush and Brock, 1982). Spitzberg supports implementing change incrementally, using small steps over time (Spitzberg, 1981). And

Sikes, et al., in their case studies, emphasize the effectiveness of utilizing a team approach with change initiated at the lower levels of the organization (Sikes, 1974, p. 107).

Fullan and Pomfret suggest a relationship between intensity of effort, target size, and successful institutionalization. They hypothesize that the greater the intensity of effort, the greater the expected success, and the smaller the organizational unit, the greater the chance of success (Fullan and Pomfret, 1977, p. 61).

Another factor related to the nature of the innovation is identified by Watkins. She maintains that the type of innovation, routine versus non-routine and continuous versus discontinuous, affects institutionalization. In a study concerning managing change in education, she found that non-routine discontinuous projects were "tenuous"; i.e., not easily institutionalized. Power strategies (e.g. mandates from management) and developing routine operations and procedures were among the strategies shown to facilitate institutionalization (Watkins, 1981, p. 243-264).

Corwin supports the correlation between the type of innovation proposed and institutionalization. He demonstrates that a change which is seen as ancillary to overall organizational structure is more likely to persist (Corwin, 1973).

Incorporating the change into the institution's regular programming also encourages persistence (Bush and Brock, 1982; Havelock, 1973; and Spitzberg, 1981). In addition, successful institutionalization is influenced by the relative advantages of the innovation, its compatibility with individual and organiza-

tional values, its clarity, its "observability and testability," and the availability of resources to implement the change (Berman and McLaughlin, 1976; Fullan and Pomfret, 1977; Neale, 1981; and Nelson and Yates, 1978).

The second category of factors which influence institutionalization are related to the organization and its members (see Appendix B). One factor within this category is organizational climate. The profound impact of organizational climate on the continuation of innovation has been demonstrated by many researchers (Baldridge and Tierney, 1979; Berman and McLaughlin, 1976; Bush and Brock, 1982; Cronberg, 1976; Mayhew, 1976; Neale, 1981; Pincus and Williams, 1979; Schmuck, 1971; Sikes, 1974; Spitzberg, 1981; and Zaltman, 1977).

Elements of the organizational climate identified by the above authors which facilitate institutionalization are:

1. A consensus of support for the project throughout the organization
2. An institutional environment receptive to change
3. Commitment of financial support for the innovation
4. Staff motivation to effect change based on awareness of need for the innovation
5. Organizational tolerance for conflict
6. Common values shared by administration, faculty, and students

7. Low degree of organization formalization and stratification with a high degree of professionalism
8. High organizational trust level
9. Decentralized decision-making process and user participation in the change process
10. Professional development for administration and faculty
11. Organization members involved as leaders of the innovation.

The results of research make it clear that the institutional setting strongly impacts successful change. Yet, as Berman and McLaughlin state, a receptive institutional setting is a "... necessary but not sufficient condition for effective implementation (Berman and McLaughlin, 1976, p. 360). Leadership is a second factor related to the organization which impacts institutionalization of change.

Bush and Brock report that it is difficult to identify the qualities of leadership which promote continuation of innovation. However, they propose that supportive leaders who assume managerial roles appropriate to the nature of the innovation and the stage of the change process facilitate institutionalization. Other researchers support this proposal (Baldridge, 1975; Newman, 1981; Sivage, 1981; Watkins, 1981). Spitzberg found, after studying the change process in higher education, that a low-key leadership style is most effective (Spitzberg, 1981, p. xxiii),

and, Neale seems to support this finding. He concludes that leadership which promotes interdependency among organization members versus dependency on a particular leader is a critical factor in continuation of an innovation (Neale, 1981, p. 60).

In addition to organizational climate and leadership, characteristics of the user have been identified as a third organizational factor:

> Lack of attention and insensitivity by implementers to the [skills and competencies of users to perform new roles] have probably been among the most important reasons for lack of effective educational change...(Fullan, 1972, p. 10).

User capabilities and comfort with the innovation influence persistence. Change requires a change in roles, skills, and working relationships which, if addressed during the change process through inservice training, lead to successful institutionalization (Fullan, 1972; Havelock, 1973; Neale, 1981; and Sikes, 1974).

Cronberg, in analyzing factors undermining change in education, found that highly professional staff are more likely to develop and implement new ideas. Gross, in his case studies of elementary schools attempting major changes in teacher roles, found that a receptive teacher attitude was important to success (Gross, 1971). The user's perception of the need to change and readiness for change act to create a receptive attitude which positively affects commitment to institutionalization (Zaltman, 1977, p. 237). Finally, Katz and Kahn report that institutionalization depends on the user's perception that the change is linked to powerful people

in the organization (Baldride and Deal, 1975).

The third category of factors which influence continuation of change are those related to the external sociopolitical context (see Appendix C). Bush and Brock identify three factors in this category:

1. Needs and demands of a changing society--changes which are congruent with external forces are more likely to continue.
2. Interest group pressure--changes which are supported by a powerful external interest group are more likely to persist.
3. Reputation of users--evidence on the influence of this factor is limited and inconclusive (Bush and Brock, 1982, p. 335).

The importance of the external environment in the change process is also noted by Cronberg. According to this researcher, since schools are open systems interacting with the environment, external forces frequently provide the impetus and support for successful change. He cites the "back to basics" movement as an example (Cronberg, 1976). Cronberg's finding that successful innovations occurred in schools where the community was receptive to and accepting of change is supported by Fullan (Fullan, 1972, pp. 8-9).

Little research has focused on the fourth category of factors which influence persistence of innovation (see Appendix D). Therefore, the role and impact of the initiating or granting agency

has not been clearly established in relationship to institutionalization. However, Bush and Brock found three factors related to federal agencies which contribute to the continuation of grant projects. These characteristics are:

1. Mandate from the agency--rules that are easy to live with and reflect the local reality facilitate institutionalization.
2. Technical assistance--federal assistance to local implementers help insure project continuation.
3. Monitoring--flexible and firm monitoring which takes into consideration local conditions contributes to persistence (Bush and Brock, 1982, p. 338).

These findings are somewhat contradictory to those of Berman and McLaughlin. Berman and McLaughlin found that federal policies did not significantly influence institutionalization of projects, but, that motivation to initiate the project as a means of solving local problems was a positive factor (Berman and McLaughlin, 1976).

Other factors which influence institutionalization, but are not easily classified into the above four categories, have been researched (see Appendix E). Time and continuity is one such factor. Bush or Brock report that educators should allow approximately five years for planning and institutionalizing significant educational changes (Bush and Brock, 1982, p. 343). Patience is not only a virtue, it is a necessity. Other factors which lead to continuation of change are a flexible bureaucratic struc-

ture, past history of successful institution and granting agency relationships, and wide-spread faculty understanding of and commitment to the need for change (Bush and Brock, 1982, p. 343).

Conclusion

Moving an institution from the status quo into a self-renewing and responsive posture, which meets the demands of our dynamic society, is a difficult and uncertain undertaking for educational leaders. In fact, educators' efforts to achieve change are frequently not successful. Fullan noted that "Despite massive attempts and good intentions, no significant effective educational change has occurred" (Fullan, 1972, p. 43).

Perhaps the lack of change can be attributed to educators who do not fully understand the change process. It seems obvious that if educators expect to create responsive, self-renewing schools, they must have a thorough knowledge of the nature and process of change.

Probably the ability to recognize, create, and utilize factors which facilitate continuation of change is even more important.

A review of the change literature reveals a variety of factors which positively influence institutionalization of change. As indicated above, the factors can be grouped into four general categories: 1) the nature of the innovation, 2) organizational factors 3) sociopolitical factors, and 4) factors related to

the granting agency (Bush and Bruck, 1982, pp. 16-18).

A careful study of these factors provides educators a framework for managing change and guidelines for creating conditions which facilitate successful institutionalization. Change is a process of interaction among the factors in these categories. They cannot be taken in isolation as they have a combined effect on the outcome of the change process (Bush and Brock, 1982, p. 19).

This interrelationship of factors demonstrates the need for educators to understand fully the unique features of the proposed innovation, the organizational setting, and external factors. Successfully navigating the change process to achieve institutionalization of change will depend on the educator's ability to identify, manipulate, and utilize these factors.

Appendix A

CATEGORY	FACTOR	ELEMENTS
Nature of Innovation	1. Power of the Idea	a. Clarity b. Proven success c. Congruency with institutional values and goals
	2. Intervention Strategy	a. Involement of user in process b. Good communications c. Mutual Adaptation d. Staff training e. Local materials development f. Flexible time schedule and incremental implementation g. Team approach h. Incorporation into regular programming i. Tial period
	3. Fiscal Aspects	a. Cost b. Funding level c. Funding source d. Facilities e. Staff
	4. Form of Innovation	a. Complexity b. Size c. Centralization grade level
	5. Intensity of effort and Target Size	a. Routine versus non-routine b. Continuous versus discontinuous
	7. Advantages of the Innovation	

Appendix B

CATEGORY	FACTORS	ELEMENTS
The Organization and Its Members	1. Organizational Climate	a. Support for the change b. Commitment of resources c. Motivation d. Tolerance for conflict e. Common values f. Organizational formalization, stratification, and professionalism g. Trust level h. Decision-making process i. Professional development j. Members as leaders of innovation project
	2. Leadership	a. Roles b. Style
	3. User Characteristics	a. Skills to implement the innovation b. Comfort with the innovation c. Working relationships d. Professionalism e. Receptive attitude f. Belief that change is linked to powerful people

Appendix C

CATEGORY	FACTORS	ELEMENTS
External Sociplolitical Context	1. Needs and Demands of Changing Society	a. Innovation congruency b. Community readiness for change
	2. Interest Group Pressure	
	3. Reputation of Users	

Appendix D

CATEGORY	FACTORS	ELEMENTS
Granting Agency	1. Mandate from the Agency	a. Rules
	2. Technical Assistance	
	3. Monitoring	

Appendix E

CATEGORY	FACTORS
Other	1. Time Schedule 2. Bureaucratic Structure 3. Institution's Past History with Granting Agency 4. Faculty Understanding of and Commitment to Change

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